

II. Amendments to the Claims:

The following listing of claims should be entered to replace all prior listings of claims in the application. In accordance with Rule 121, the status of each claim is indicated parenthetically. As can be seen, in this listing, claims 3, 4, 6, 10, 11, 16, 20-22, 25-30, 33, 34, 36, 37, 39-100 and 102-120 have been canceled without prejudice and claims 1, 2, 5, 7-9, 12-15, 17-19, 23, 24, 31, 32, 35, 38 and 101 remain in the application.

Listing of Claims:

1. (previously presented) A multi-axis input transducer apparatus comprising:
 - an at least quinary input element capable of input with respect to at least five frames of reference,
 - a reflective element responsive to radiation from a source capable of emitting radiation eventually incident upon said reflective element; and
 - at least one reflected radiation detector responsive to radiation from said reflective element.
2. (original) The multi-axis input transducer apparatus as described in claim 1 wherein said at least quinary input element comprises an at least sextet input element capable of input with respect to at least six frames of reference.
3. (canceled)
4. (canceled)
5. (original) The multi-axis input transducer apparatus as described in claim 1 wherein said source of radiation comprises a source of electromagnetic radiation.
6. (canceled)

7. (original) The multi-axis input transducer apparatus as described in claim 1 wherein said at least five frames of reference comprises at least three translational frames of reference.
8. (original) The multi-axis input transducer apparatus as described in claim 1 wherein said at least five frames of reference comprises at least three rotational frames.
9. (original) The multi-axis input transducer apparatus as described in claim 1 wherein said at least five frames of reference comprise three translational frames of reference and two rotational frames of reference.
10. (canceled)
11. (canceled)
12. (original) The multi-axis input transducer apparatus as described in claim 1 further comprising a comparatively non-reflective element upon which radiation from said source is eventually incident.
13. (original) The multi-axis input transducer apparatus as described in claim 12 wherein said comparatively non-reflective element forms at least one abrupt border with said reflective element where there is an abrupt change from reflective to comparatively non-reflective.
14. (original) The multi-axis input transducer apparatus as described in claim 13 wherein said at least one abrupt border comprises at least two abrupt borders.
15. (original) The multi-axis input transducer apparatus as described in claim 14 wherein said at least two abrupt borders comprises at least two substantially orthogonal abrupt borders.
16. (canceled)

17. (original) The multi-axis input transducer apparatus as described in claim 13 wherein said at least one abrupt border comprises at least two abrupt borders.

18. (original) The multi-axis input transducer apparatus as described in claim 17 wherein said at least two abrupt borders zig zag.

19. (original) The multi-axis input transducer apparatus as described in claim 1 wherein said reflective element is established extra-radially of said source.

Claims 20-22 canceled.

23. (original) The multi-axis input transducer apparatus as described in claim 1 wherein said at least quinary input element comprises a joystick.

24. (original) The multi-axis input transducer apparatus as described in claim 1 wherein said reflective element comprises an annular reflective element.

Claims 25-30 canceled.

31. (original) A joystick comprising a radiation source, a reflector, and reflected radiation sensor, at least one of which is movable with respect to at least one other of said three elements in at least three degrees of freedom, wherein said radiation source projects radiation eventually incident upon said reflector, said reflector reflects a varying reflected optical signal to said reflected radiation sensor in a manner which varies in at least three degrees of freedom, and said reflected radiation sensor senses at least a portion of said varying reflected optical signal.

32. (original) A joystick as in claim 31 wherein said source of radiation comprises a visible light source of radiation.

33. (canceled)

34. (canceled)

35. (original) The joystick of claim 31 wherein the returned optical signal is detected as an image incident on an array of image sensing elements.

36. (canceled)

37. (canceled)

38. (original) The joystick of claim 31 wherein said reflected radiation sensor comprises a photo detector and the radiation source comprises time sequenced light emitters.

Claims 39-100 (canceled).

101. (original) A multi-axis joystick comprising:

a finger operable first portion at least quinaxially responsively connected to a second portion; and a hand operable second portion at least uniaxially responsively connected to a third portion, each movable connection generating a signal in response to relative movement.

Claims 102-120 (canceled).